



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

April 14, 2023

Daniel Edney, M.D., FACP, FASAM  
State Health Officer  
Mississippi State Department of Health  
570 East Woodrow Wilson Avenue  
P.O. Box 1700  
Jackson, MS 39215-1700

Dear Dr. Edney:

The U.S. Nuclear Regulatory Commission (NRC) uses the Integrated Materials Performance Evaluation Program (IMPEP) in the review of Agreement State and NRC radiation control programs. Enclosed is the draft IMPEP report, which documents the results of the Mississippi Agreement State review conducted on February 27 – March 3, 2023, in Jackson, Mississippi. The team's preliminary findings were discussed with your staff on the last day of the review. The team recommends that the Mississippi Agreement State Program be found adequate to protect public health and safety but needs improvement and compatible with the NRC's program. The team also recommends discontinuation of the probationary period and placing Mississippi on a period of Heightened Oversight. The Commission would make a decision whether to discontinue the probationary period, based on a recommendation from the MRB Chair.

The NRC conducts periodic reviews of radiation control programs to ensure that public health and safety are adequately protected from the potential hazards associated with the use of radioactive materials and that Agreement State programs are compatible with the NRC's program. The IMPEP process uses a team comprised of Agreement State and NRC staff to perform the reviews. All reviews use common criteria in the assessment and place primary emphasis on performance. The final determination of adequacy and compatibility of each program, based on the team's report, is made by the Chair of the Management Review Board (MRB) after receiving input from the MRB members. The MRB is composed of NRC senior managers and an Agreement State program manager.

In accordance with procedures for implementation of IMPEP, we are providing you with a copy of the draft report for your review and comment prior to submitting the report to the MRB. Comments are requested within 4 weeks from your receipt of this letter. This schedule will permit the issuance of the final report in a timely manner.

The team will review the response, make any necessary changes to the report, and issue it to the MRB for its review prior to the MRB meeting. The MRB meeting is scheduled to be conducted on June 15, 2023, at 1:00 PM ET, via Microsoft Teams and in-person at NRC Headquarters. The NRC will provide invitational travel for you or your designee to attend the MRB meeting at the NRC Headquarters in Rockville, Maryland. The NRC will also provide you with Microsoft Teams connection information prior to the meeting.

If you have any questions regarding the enclosed report, please contact Monica Ford at 610-337-5214.

Thank you for your cooperation.

Sincerely,

 Signed by Johnson, Robert  
ature. [redacted] on 04/14/23

Robert Johnson, Acting Chief  
State Agreement and Liaison Programs Branch  
Division of Materials Safety, Security, State,  
and Tribal Programs  
Office of Nuclear Material Safety and Safeguards

Enclosure:  
2023 Draft IMPEP Report

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SUBJECT: MISSISSIPPI FY2023 DRAFT IMPEP REPORT DATE April 14, 2023

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF THE MISSISSIPPI PROGRAM

February 27 – March 3, 2023

**DRAFT REPORT**

## EXECUTIVE SUMMARY

The results of the Integrated Materials Performance Evaluation Program (IMPEP) review of the Mississippi Agreement State Program (Mississippi) are discussed in this report. The review was conducted from February 27 – March 3, 2023. In-person inspector accompaniments were conducted during the week of January 23, 2023.

The team found Mississippi's performance to be satisfactory for the following four performance indicators: Status of Materials Inspection Program; Technical Quality of Inspections; Technical Quality of Incident and Allegation Activities; and Legislation, Regulations, and Other Program Elements. The team found Mississippi's performance to be satisfactory but needs improvement for the following two performance indicators: Technical Staffing and Training and Technical Quality of Licensing Actions. Since the last IMPEP review, which was completed in February 2022, Mississippi has improved its performance findings relative to five indicators. The performance finding for the indicator Technical Staffing and Training remains the same.

The team is proposing one new recommendation for improved program performance related to staff receiving training on recently revised programmatic operating procedures. This new recommendation is captured under Section 3.1, Technical Staffing and Training. Of the 10 recommendations made during the 2022 IMPEP review, the team is proposing 9 of the 10 recommendations be closed. The one remaining recommendation, which falls under Section 3.4, Technical Quality of Licensing Actions, is related to Mississippi performing an extent of condition review of licensing actions involving the addition of authorized users, radiation safety officers, authorized medical physicists, and authorized nuclear pharmacists. The team found that Mississippi has made progress in addressing this recommendation but needs more time to complete the full review. Therefore, the team determined this recommendation should remain open. Additionally, the 2022 IMPEP review held open one recommendation from the 2017 IMPEP review. The team reviewed work done by Mississippi related to this recommendation and is proposing it also be closed.

Accordingly, the 2023 team recommends that the Mississippi Agreement State Program be found adequate to protect public health and safety but needs improvement and compatible with the NRC's program. The team recommends that a periodic meeting take place in approximately 1 year with the next IMPEP review taking place in approximately 2 years from the MRB meeting.

Based on the results of the 2022 IMPEP review, the MRB Chair, in consultation with the other MRB members, determined that the NRC should initiate a period of Heightened Oversight for Mississippi and as a result of the significance of the findings, recommend to the Commission that Mississippi be placed on Probation. The NRC staff was directed to hold monthly status calls with Mississippi to monitor programmatic activity related to the deficiencies seen during the 2022 IMPEP review and hold a full IMPEP review in February 2023. On August 30, 2022, NRC staff transmitted SECY-22-0081 to the Commission recommending Mississippi be placed on Probation. On September 22, 2022, the Commission approved the recommendation and Mississippi was placed on Probation.

As a result of the improved performance seen during the 2023 IMPEP review, the team is recommending the MRB request the Commission remove Mississippi from Probation. If approved, Mississippi would then enter a period of Heightened Oversight. In making this recommendation, the team determined that Mississippi has improved ratings in 5 out of the 6 performance indicators found less than satisfactory in 2022 and has completed work related to 10 of the 11 recommendations made related to deficiencies seen in program performance.

## 1.0 INTRODUCTION

The Mississippi Agreement State Program (Mississippi) review was conducted from February 27 – March 3, 2023, by a team of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of New Jersey. Team members are identified in Appendix A. In-person inspector accompaniments of four of Mississippi's qualified inspectors were conducted during the week of January 23, 2023. The inspector accompaniments are identified in Appendix B.

The review was conducted in accordance with the "Agreement State Program Policy Statement," published in the *Federal Register* on October 18, 2017 (82 FR 48535), and NRC Management Directive (MD) 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)," dated July 24, 2019. Preliminary results of the review, which covered the period of February 12, 2022, to March 3, 2023, were discussed with Mississippi managers on the last day of the review.

In preparation for the review, a questionnaire addressing the common performance indicators and applicable non-common performance indicators was sent to Mississippi on October 14, 2022. Mississippi provided its response to the questionnaire on February 13, 2023. A copy of the questionnaire response is available in the NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number [ML23053A169](#).

The Agreement State Program is administered by the Radiation Control Program within the Division of Radiological Health. The Division of Radiological Health is contained within the Division of Health Protection which is a part of the Mississippi State Department of Health. An organization chart is available in ADAMS using the Accession Number [ML23053A184](#).

At the time of the review, Mississippi regulated 243 specific licenses authorizing possession and use of radioactive materials. The review focused on the radiation control program as it is carried out under an Agreement between the NRC and the State of Mississippi, authorized by Section 274b. of the Atomic Energy Act of 1954, as amended.

The team evaluated the information gathered against the established criteria for each common performance indicator and the one applicable non-common performance indicator. As a result of the evaluation, the team made a preliminary assessment of Mississippi's performance.

## 2.0 PREVIOUS IMPEP REVIEW AND STATUS OF RECOMMENDATIONS

The previous IMPEP review concluded on February 11, 2022. The final report is available in ADAMS using the Accession Number [ML22178A114](#). The overall results of the 2022 IMPEP review and a summary of the indicator findings and the 11 associated recommendations are as follows.

Technical Staffing and Training: 2022 IMPEP Finding - Satisfactory but needs improvement

The 2022 IMPEP review determined that Mississippi: (1) did not implement a balanced staffing strategy throughout the review period; (2) vacancies were not filled in a timely manner; and (3) individuals performing materials licensing and inspection activities were

not adequately qualified or trained to perform their duties. One recommendation was made related to a deficiency seen in program performance.

Recommendation 1: Mississippi performs an independent evaluation to ensure all license reviewers and inspectors are appropriately qualified through initial and refresher training to perform the duties they are assigned.

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.1 of this report.

#### Status of Materials Inspection Program: 2022 IMPEP Finding – Unsatisfactory

The 2022 IMPEP determined that Mississippi: (1) may not have performed initial inspections and inspections of Priority 1, 2, and 3 licensees at the prescribed frequencies; (2) did not normally coordinate deviations in inspection schedules between technical staff and management; (3) did not develop a plan to perform overdue inspections or reschedule any missed or deferred inspections or to formulate a basis for not performing any overdue inspections or rescheduling any missed or deferred inspections; (4) did not inspect applicant licensees working under reciprocity in accordance with the criteria prescribed; and (5) did not communicate inspection findings to licensees in a timely manner. Two recommendations were made related to deficiencies seen in program performance.

Recommendation 2: Mississippi develops and implements a reliable and comprehensive scheduling and tracking process to ensure completion of inspections, including reciprocity inspections (similar to a 2009 IMPEP review recommendation); trains staff; and assesses the performance results on an annual basis.

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.2 of this report.

Recommendation 3: Mississippi develops a method to ensure licensees are provided with the results of the inspection (e.g., cover letters) in a timely manner.

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.2 of this report.

#### Technical Quality of Inspections: Unsatisfactory

The 2022 IMPEP determined that Mississippi did not: (1) always focus inspections of licensed activities on health, safety, and security; (2) ensure inspection findings were well-founded and properly documented in reports; (3) ensure management promptly reviewed inspection results; (4) ensure procedures were in place and used to help identify root causes and poor licensee performance; (5) ensure that inspections addressed previously identified open items and violations; (6) ensure that inspection findings lead to appropriate and prompt regulatory action; (7) conduct annual accompaniments of each qualified inspector to assess performance and assure consistent application of inspection policies; and (8) have compatible inspection guidance. The 2022 IMPEP also found that inspection findings were incomplete,

inconsistent, and not properly documented in reports. Three recommendations were made related to deficiencies seen in program performance.

Recommendation 4: Mississippi develops and implements inspection procedures (IPs) that are consistent with the NRC's IPs and provide training on the proper method of documenting inspections. Checklists may be used, but the final inspection documentation needs to be clear, consistent, and comprehensive to ensure that the inspection covered all required safety focus areas. These procedures should ensure: (1) inspection documentation is complete, comprehensive, focused on safety and security, as applicable, and meets the documentation requirements in IMC 2800; and (2) violations are adequately documented, licensee corrective actions reviewed for adequacy and documented, and sufficient follow-up of violations is performed and documented consistent with the safety or security significance.

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.3 of this report.

Recommendation 5: Mississippi develops a systematic approach to ensure that annual supervisory inspector accompaniments are completed.

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.3 of this report.

Recommendation 6: Mississippi ensures staff have access to the Sealed Source and Device (SS&D) Registry and the National Source Tracking System in order to provide inspectors with information they will need for inspection preparation.

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.3 of this report.

#### Technical Quality of Licensing Actions: Unsatisfactory

The 2022 IMPEP review determined that Mississippi did not ensure: (1) licensing action reviews were thorough, complete, consistent, and of acceptable technical quality with health, safety, and security issues properly addressed; (2) essential elements of license applications were always submitted, and elements were consistent with current regulatory guidance; (3) license conditions were stated clearly; (4) reviews of renewal applications demonstrated a thorough analysis of a licensee's inspection and enforcement history; and (5) applicable guidance documents were not being followed. Three recommendations were made related to deficiencies seen in program performance.

Recommendation 7: Mississippi performs an extent of condition review of all medical licenses issued since April 28, 2017, to ensure that all Radiation Safety Officers (RSOs), Authorized Users (AUs), authorized nuclear pharmacists, and authorized medical physicists are appropriately qualified in accordance with applicable licensing guidance (e.g., equivalent 10 CFR Part 35 regulations and NUREG-1556, Volume 9, Revision 3).



Status: The team is proposing that this recommendation remain open. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.4 of this report.

Recommendation 8: Mississippi develops a licensing review process that follows the NUREG-1556 series. The licensing review process should use standard or approved license conditions on Mississippi radioactive material licenses to ensure that they do not cause conflicts, duplications, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis. In addition, Mississippi should perform an extent of condition review of licenses renewed since April 28, 2017, to determine if the licensee's compliance history/enforcement history at the time would have made Mississippi not renew the license based on this additional information in accordance with NUREG-1556, Volume 20, Revision 1.

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.4 of this report.

Recommendation 9: The Program review its guidance including licensing, incident, and allegation guidance; update this guidance, as appropriate; and provide training to all Program staff on the new procedures. (Remained open from the 2017 IMPEP review).

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.4 of this report.

#### Technical Quality of Incident and Allegation Activities: Unsatisfactory

The 2022 IMPEP review determined that Mississippi did not ensure: (1) incident response and allegation procedures were followed consistently; (2) response actions were appropriate, well-coordinated, and timely; (3) on-site responses were performed when incidents have potential health, safety, or security significance; (4) incidents were closed when all required information had been obtained; (5) allegations were investigated in a prompt, appropriate manner; (6) concerned individuals were notified within 30 days of investigation conclusions; and (7) concerned individuals' identities were protected. One recommendation was made related to deficiencies seen in programmatic performance.

Recommendation 10: Mississippi conduct an assessment of their incident and allegation casework completed for the review period to ensure proper closure of cases.

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 3.5 of this report.

#### Legislation, Regulations, and Other Program Elements: Satisfactory but needs improvement

The 2022 IMPEP review determined that Mississippi did not ensure: (1) that the Agreement State program does not have the potential to create conflicts, duplications, gaps, or other conditions that jeopardize an orderly pattern in the regulation of radioactive materials under the Atomic Energy Act of 1954, as amended; and (2) other program elements, as defined in SA-200 that have been designated as necessary for

maintenance of an adequate and compatible program, have not been adopted and implemented within 6 months of NRC designation. One recommendation was made related to deficiencies seen in programmatic performance.

Recommendation 11: Mississippi develops and implements a procedure for the control of sensitive or security-related information that provides guidance to identify, mark, handle, and protect such information consistently. This applies to the overall program (licensing, inspections, and investigations).

Status: The team is proposing that this recommendation be closed. Details related to the work performed by Mississippi to address this recommendation and the 2023 IMPEP team's evaluation of that effort can be found in Section 4.1 of this report.

Overall finding: As a result of the 2022 IMPEP review, Mississippi was found adequate to protect public health and safety but needs improvement and not compatible with the NRC's program. Based on the results of the 2022 IMPEP review, the MRB Chair, in consultation with the other MRB members, determined that the NRC should initiate a period of Heightened Oversight for Mississippi and as a result of the significance of the findings, the MRB Chair recommended to the Commission that Mississippi be placed on Probation, and the Commission agreed. Additionally, the NRC staff was directed to hold monthly status calls with Mississippi to monitor programmatic activity related to the deficiencies seen during the 2022 IMPEP review and the MRB Chair directed the next full IMPEP review take place in February 2023.

On August 30, 2022, NRC staff transmitted SECY-22-0081 to the Commission recommending Mississippi be placed on Probation. On September 22, 2022, the Commission approved the staff's recommendation, and Mississippi was placed on Probation.

### 3.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review the NRC and Agreement State radiation control programs. These indicators are: (1) Technical Staffing and Training, (2) Status of Materials Inspection Program, (3) Technical Quality of Inspections, (4) Technical Quality of Licensing Actions, and (5) Technical Quality of Incident and Allegation Activities.

#### 3.1 Technical Staffing and Training

The ability to conduct effective licensing and inspection programs is largely dependent on having a sufficient number of experienced, knowledgeable, well-trained technical personnel. Under certain conditions, staff turnover could have an adverse effect on the implementation of these programs and could affect public health and safety. Apparent trends in staffing must be assessed. Review of staffing also requires consideration and evaluation of the levels of training and qualification. The evaluation standard measures the overall quality of training available to, and taken by, materials program personnel.

##### a. Scope

The team used the guidance in State Agreements procedure [SA-103](#), "Reviewing the Common Performance Indicator: Technical Staffing and Training," and evaluated Mississippi's performance with respect to the following performance indicator objectives:

- A well-conceived and balanced staffing strategy has been implemented throughout the review period.
- Any vacancies, especially senior-level positions, are filled in a timely manner.
- There is a balance in staffing of the licensing and inspection programs.
- Management is committed to training and staff qualification.
- Agreement State training and qualification program is equivalent to NRC Inspection Manual Chapter (IMC) 1248, "Formal Qualifications Program for Federal and State Material and Environmental Management Programs."
- Qualification criteria for new technical staff are established and are followed, or qualification criteria will be established if new staff members are hired.
- Individuals performing materials licensing and inspection activities are adequately qualified and trained to perform their duties.
- License reviewers and inspectors are trained and qualified in a reasonable period of time.

b. Discussion

Mississippi is comprised of a Radiation Control Program Director (RCPD), a Radioactive Materials Team Lead (Team Lead), five inspectors and two licensing reviewers. No staff left the program during the IMPEP review period and there are no vacancies at this time. Work performed by the Team Lead and the technical staff comprise a total of 6.8 full-time equivalent. Both of the license reviewers are fully qualified. The Team Lead is a fully qualified inspector. The five staff-level inspectors are going through the qualification process and are at different phases of qualification. Four of the five inspectors going through qualifications are qualified to independently perform inspections of at least one licensee type regulated by the program.

Mississippi has a training and qualification program compatible with IMC 1248. The team verified that the qualified inspectors and license reviewers have completed at least 24 hours of refresher training every 2 years. The team noted during the 2022 IMPEP review that several recommendations included training staff on revisions made to operating procedures. The team determined that while Mississippi was able to update and implement all applicable operating procedures, formal staff training on the revisions did not occur. Therefore, the team is making one recommendation related to improving performance in this area. The team recommends that Mississippi provide training to its staff on all programmatic procedures revised since the 2022 IMPEP review.

As identified in Section 2.0 of this report, one recommendation for improved program performance was made as a result of the 2022 IMPEP review.

Recommendation 1: Mississippi performs an independent evaluation to ensure all license reviewers and inspectors are appropriately qualified through initial and refresher training to perform the duties they are assigned.

To assess Mississippi's work related to this recommendation, the team reviewed the training and qualification journals for the Team Lead and all technical staff. The team confirmed that qualification journals were completed as appropriate and that technical staff going through the qualification process update their journal when an activity is complete. Program management verifies completion of training activities for staff going through the qualification process. Additionally, Mississippi has developed and implemented an Excel spreadsheet to track refresher training for qualified staff. Mississippi determined that all technical staff are appropriately qualified, and that proper

documentation exists to illustrate the training obtained to meet the qualification requirements. Therefore, the team is proposing that this recommendation be closed.

c. Evaluation

The team determined that, during the review period, Mississippi met the performance indicator objectives listed in Section 3.1.a. However, the team noted during the 2022 IMPEP review that several recommendations included training staff on revisions made to operating procedures. The team determined that while Mississippi was able to update and implement all applicable operating procedures, formal staff training on the revisions did not occur. Therefore, the team recommends that:

- Mississippi provide training to its staff on all programmatic procedures revised since the 2022 IMPEP review.

The team discussed findings of satisfactory and satisfactory but needs improvement for this indicator. The team noted that Mississippi has made significant progress in hiring additional staff to address concerns from the 2022 IMPEP review, related to a balance in staffing the licensing and inspection programs. However, given the limited time between the previous IMPEP review and now, qualifications of those staff are still in progress. Therefore, since Mississippi needs additional time to allow inspection staff to complete the qualification process, the team does not believe a finding of satisfactory is warranted.

Based on the criteria in MD 5.6, the team recommends that Mississippi's performance with respect to the indicator, Technical Staffing and Training, be found satisfactory but needs improvement.

d. MRB Chair's Determination

The final report will present the MRB Chair's determination regarding this indicator.

3.2 Status of Materials Inspection Program

Inspections of licensed operations are essential to ensure that activities are being conducted in compliance with regulatory requirements and consistent with good safety and security practices. The frequency of inspections is specified in IMC 2800, "Materials Inspection Program," and is dependent on the amount and type of radioactive material, the type of operation licensed, and the results of previous inspections. There must be a capability for maintaining and retrieving statistical data on the status of the inspection program.

a. Scope

The team used the guidance in [SA-101](#), "Reviewing the Common Performance Indicator: Status of the Materials Inspection Program," and evaluated Mississippi's performance with respect to the following performance indicator objectives:

- Initial inspections and inspections of Priority 1, 2, and 3 licensees are performed at the prescribed frequencies (<https://www.nrc.gov/materials/miau/mat-toolkits.html>).
- Deviations from inspection schedules are normally coordinated between technical staff and management.

- There is a plan to perform any overdue inspections and reschedule any missed or deferred inspections or a basis has been established for not performing any overdue inspections or rescheduling any missed or deferred inspections.
- Candidate licensees working under reciprocity are inspected in accordance with the criteria prescribed in IMC 2800 and other applicable guidance or compatible Agreement State Procedure.
- Inspection findings are communicated to licensees in a timely manner (30 calendar days, or 45 days for a team inspection), as specified in IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports."

b. Discussion

Mississippi performed 38 Priority 1, 2, 3 and initial inspections during the review period. Of these, 37 were Priority 1, 2, or 3 inspections and 1 was an initial inspection. Mississippi's inspection frequencies are the same for similar license types in NRC's program. The team found that two Priority 1 inspections were performed overdue during the review period and two Priority 1 inspections remained overdue at the time of the review. The one initial inspection performed during the review period was performed timely.

The team found that the two inspections performed overdue during this review period, were for "out of state" licensees, meaning that the licensees primary storage location and place of business are located in another State and the licensee does not have authorization to store licensed material within the State of Mississippi. These licenses authorize temporary jobsite work only. For licensees not located within the State, Mississippi does not have the ability to complete performance-based inspections unless the licensee enters the State to perform work at a temporary job site, or the licensee agrees to meet the inspector at a predetermined location in the State to perform the inspection. The team noted that if these out of state licensees chose to file for reciprocity rather than obtain a specific license, then they would not be overdue for inspection, and the inspection would simply be performed the next time they performed licensed activities within the State.

The team found that for the two licensees that were currently overdue for inspection at the time of the IMPEP review, one inspection was overdue because the licensee was an "out of state" licensee and the other inspection was overdue because of an incorrect program code in the inspection tracking database. The team determined that for the out of state licensee, the inspector reached out on two separate occasions to attempt to perform this inspection. These email communications are documented in the licensee's inspection file. The other licensee was an industrial radiography company authorized for a permanent radiographic installation as well as for work at temporary job sites. The team determined that this license was erroneously listed in Mississippi's tracking system as a Priority 2, because the secondary program code of 3310 was used instead of the primary program code of 3320. Mississippi immediately updated its database to reflect the appropriate program code/priority, and subsequently performed the inspection on March 8, 2023.

Overall, the team determined that Mississippi had 10 percent of its Priority 1, 2, 3 and initial inspections either performed overdue during the review period or remained overdue at the time of the IMPEP review. The inspections that remained overdue at the time of the IMPEP review became overdue in December 2022 and in January 2023. During this review period, Mississippi had 51 licensees file for reciprocity, 24 of which were Priority 1, 2, or 3 licensees. Mississippi performed 4 reciprocity inspections during

the review period: two Priority 1 licensees, one Priority 3 licensee, and one Priority 5 licensee. Mississippi's reciprocity inspection procedure is consistent with the guidance contained in the March 3, 2020, revision of IMC 2800, and Mississippi is performing these inspections in a risk-informed performance-based manner, with consideration of factors such as inspection priority of licensee and duration of work in the state.

As identified in Section 2.0 of this report, two recommendations were made related to program performance as a result of the 2022 IMPEP review.

Recommendation 2: Mississippi develops and implements a reliable and comprehensive scheduling and tracking process to ensure completion of inspections, including reciprocity inspections, trains staff, and assesses the performance results on an annual basis.

Mississippi maintains a Microsoft Access database for tracking licensing and inspection activities. The team determined that the database allows Mississippi to effectively track and assess programmatic activity associated with inspections on an as needed basis. The supervisor runs a query on the inspections coming due for that calendar quarter and emails the list of inspections due to the inspectors. As an additional means of tracking, Mississippi uses a white board to list the inspections and associated due dates. When the inspection is complete and the report has been issued, the inspection is removed from the board. The team determined that only program management has the authority to manipulate the information in the database. Therefore, the team is proposing that this recommendation be closed.

Recommendation 3: Mississippi develops a method to ensure licensees are provided with the results of the inspection (e.g., cover letters) in a timely manner.

The team reviewed 21 inspections and the associated inspection findings for inspections performed during the review period. The team determined that all inspection finding reports were sent to the licensee within 30 days of the exit meeting. The inspection reports issued to licensees consisted of a letter that documented information such as the date of inspection, the date of the exit meeting, and inspection results. A white board, which is located in the hallway outside of the supervisor's office, was used as a tool to remind the supervisor and staff of the reports that have not yet been issued. The team determined that the methodology implemented by Mississippi was adequate to ensure that inspection results were transmitted to the licensee in a timely manner. Therefore, the team is proposing that this recommendation be closed.

c. Evaluation

The team determined that, during the review period, Mississippi met the performance indicator objectives listed in Section 3.2.a. Based on the criteria in MD 5.6, the team recommends that Mississippi's performance with respect to the indicator, Status of Materials Inspection Program, be found satisfactory.

d. MRB Chair's Determination

The final report will present the MRB Chair's determination regarding this indicator.

### 3.3 Technical Quality of Inspections

Inspections, both routine and reactive, provide reasonable assurance that licensee activities are carried out in a safe and secure manner. Accompaniments of inspectors performing inspections and the critical evaluation of inspection records are used to assess the technical quality of an inspection program.

#### a. Scope

The team used the guidance in [SA-102](#), “Reviewing the Common Performance Indicator: Technical Quality of Inspections,” and evaluated Mississippi’s performance with respect to the following performance indicator objectives:

- Inspections of licensed activities focus on health, safety, and security.
- Inspection findings are well-founded and properly documented in reports.
- Management promptly reviews inspection results.
- Procedures are in place and used to help identify root causes and poor licensee performance.
- Inspections address previously identified open items and violations.
- Inspection findings lead to appropriate and prompt regulatory action.
- Supervisors, or senior staff as appropriate, conduct annual accompaniments of each inspector to assess performance and assure consistent application of inspection policies.
- For Programs with separate licensing and inspection staffs, procedures are established and followed to provide feedback information to license reviewers.
- Inspection guides are compatible with NRC guidance.
- An adequate supply of calibrated survey instruments is available to support the inspection program.

#### b. Discussion

The team evaluated 21 inspection reports and enforcement documentation, and interviewed inspectors involved in materials inspections conducted during the review period. The team reviewed casework for inspections conducted by five of Mississippi’s inspectors and covered medical, industrial, commercial, academic, research, and service licenses. The team determined that the inspection findings were well-founded and appropriately documented.

A team member accompanied four inspectors during the week of January 23, 2023. The inspector accompaniments were conducted in-person and are identified in Appendix B. The inspectors were accompanied during health, safety, and security inspections. During the accompaniments, the inspectors demonstrated appropriate use of inspection checklists, knowledge of the regulations, and appropriate use of calibrated survey instruments. Mississippi’s inspection checklists are compatible with the NRC’s IPs. The checklists address risk-significant elements and include a narrative below each section to expand on the specifics of that particular section.

The team determined that Mississippi inspectors were trained, adequately prepared for the inspections, conducted interviews with appropriate personnel, observed licensed activities, conducted independent and confirmatory radiation measurements, and utilized appropriate health physics practices. The inspections were adequate to assess radiological health, safety, and security at the licensed facilities, as evidenced by one inspection resulting in a security violation being identified and another inspection

resulting in a violation being identified for the storage of licensed material in an unauthorized location.

The team noted that Mississippi maintained sufficient instrumentation for inspectors to conduct independent and confirmatory radiation measurements. The instrumentation was calibrated at appropriate intervals and was appropriate for the types of licensed activities being inspected.

The team also evaluated the performance of supervisory accompaniments of qualified inspectors. All qualified inspectors were accompanied annually during the review period. However, the team determined that the Team Lead, who also performs inspections, had a supervisory accompaniment performed by the program's Radiation Control Program Director (RCPD) that was not documented. The RCPD was unclear on whether or not he could perform a supervisory accompaniment as required since he himself was not a qualified inspector. The team explained that this is an acceptable practice. The RCPD stated that supervisory accompaniments of the Team Lead performed would be documented going forward.

As identified in Section 2.0 of this report, three recommendations were made related to program performance as a result of the 2022 IMPEP review.

Recommendation 4: Mississippi develops and implements IPs that are consistent with the NRC's IPs and provide training on the proper method of documenting inspections. Checklists may be used, but the final inspection documentation needs to be clear, consistent, and comprehensive to ensure that the inspection covered all required safety focus areas. These procedures should ensure: (1) inspection documentation is complete, comprehensive, focused on safety and security, as applicable, and meets the documentation requirements in IMC 2800; and (2) violations are adequately documented, licensee corrective actions reviewed for adequacy and documented, and sufficient follow-up of violations is performed and documented consistent with the safety or security significance.

Mississippi has an overarching document, compatible with IMC 2800, entitled "Inspection Policy and Procedures." This document was last revised October 26, 2022. The document outlines the basic elements of any inspection, and the actual inspection checklists that are tied to this document describe how to perform each specific inspection modality. The inspection checklists were very detailed and are compatible with the NRC's IPs. These checklists address risk-significant elements and include a narrative below each section to expand on the specifics of that particular section. All inspection reports reviewed, with associated checklists, were clear, consistent, and comprehensive, and focused on risk-significant elements of the inspection. Additionally, all violations reviewed were adequately documented, including appropriate "contrary-to" statements, and licensee responses were appropriately reviewed and acknowledged in response letters to the licensee. Therefore, the team is proposing that this recommendation be closed.

Recommendation 5: Mississippi develops a systematic approach to ensure that annual supervisory inspector accompaniments are completed.

At the time of the last IMPEP review, the Team Lead position was vacant. Mississippi filled this position at the beginning of this review period. The Team Lead is responsible for the performance of annual supervisory inspector accompaniments of qualified staff. The team determined that during the review period the Team Lead performed



accompaniments of all qualified inspection staff on an annual basis. The accompaniments were documented on an accompaniment form and are maintained in each individual's training file. At this time, the Team Lead is also performing inspections as all five technical staff inspectors work to become fully qualified inspectors. Since the Team Lead is performing inspections, they are also required to have a supervisory accompaniment. The Team Lead was accompanied by the RCPD during the review period; however, the accompaniment was not documented. The team determined that Mississippi's approach to the performance of supervisory accompaniments met the intent of the recommendation. Therefore, the team is proposing that this recommendation be closed.

Recommendation 6: Mississippi ensures staff have access to the SS&D Registry and the National Source Tracking System in order to provide inspectors with information they will need for inspection preparation.

Through inspector accompaniments and interviews, it was determined that all inspectors have access to the SS&D Registry. It was further determined that the two inspectors that were qualified to perform inspections of licensees authorized to possess Category 1 and 2 quantities of licensed material have access to the National Source Tracking System. The supervisor stated that as the other inspectors obtain qualification to perform these types of inspections, they will go through the credentialing process to obtain access to the National Source Tracking System. Therefore, the team is proposing that this recommendation be closed.

c. Evaluation

The team determined that, during the review period, Mississippi met the performance indicator objectives listed in Section 3.3.a. Based on the criteria in MD 5.6, the team recommends that Mississippi's performance with respect to the indicator, Technical Quality of Inspections be found satisfactory.

d. MRB Chair's Determination

The final report will present the MRB Chair's determination regarding this indicator.

3.4 Technical Quality of Licensing Actions

The quality, thoroughness, and timeliness of licensing actions can have a direct bearing on public health and safety, as well as security. An assessment of licensing procedures, implementation of those procedures, and documentation of communications and associated actions between the Mississippi licensing staff and regulated community is a significant indicator of the overall quality of the licensing program.

a. Scope

The team used the guidance in [SA-104](#), "Reviewing the Common Performance Indicator: Technical Quality of Licensing Actions," and evaluated Mississippi's performance with respect to the following performance indicator objectives:

- Licensing action reviews are thorough, complete, consistent, and of acceptable technical quality with health, safety, and security issues properly addressed.

- Essential elements of license applications have been submitted and elements are consistent with current regulatory guidance (e.g., pre-licensing guidance, Title 10 of the *Code of Federal Regulations* (10 CFR) Part 37, financial assurance, etc.).
- License reviewers, if applicable, have the proper signature authority for the cases they review independently.
- License conditions are stated clearly and can be inspected.
- Deficiency letters clearly state regulatory positions and are used at the proper time.
- Reviews of renewal applications demonstrate a thorough analysis of a licensee's inspection and enforcement history.
- Applicable guidance documents are available to reviewers and are followed (e.g., NUREG-1556 series, pre-licensing guidance, regulatory guides, etc.).
- Licensing practices for risk-significant radioactive materials (RSRM) are appropriately implemented including the physical protection of Category 1 and Category 2 quantities of radioactive material (10 CFR Part 37 equivalent).
- Documents containing sensitive security information are properly marked, handled, controlled, and secured.

b. Discussion

During the review period, Mississippi performed 121 radioactive materials licensing actions. The team evaluated 17 of those licensing actions. The licensing actions selected for review included three new applications, eight amendments, four renewals, and two terminations. The team evaluated casework which included the following license types and actions: academic broad scope, medical diagnostic and therapy, mobile medical service, industrial radiography, nuclear pharmacy, fixed gauges, irradiators, and financial assurance. The casework sample represented work from the two current license reviewers.

During this review period, Mississippi implemented the NRC's Web-Based Licensing system for licensing. This was done to help address concerns over the use of non-standard license conditions as documented during the 2022 IMPEP review. The team found that licensing actions completed during the 2023 IMPEP review period were complete, thorough, and of adequate technical quality, with health, safety, and security issues properly addressed. The licensing cases reviewed demonstrated that proper guidance was followed. All necessary licensee commitments were obtained, and deficiency letters and license conditions were well supported by information contained in the licensing files.

At the time of the review, one licensing action, a renewal, had been in progress for more than 1 year. This renewal action was delayed for several reasons including the need to discuss enforcement issues, confirm sources, and the licensee's RSO leaving in 2021. Mississippi received the licensee's renewal application after it had been informed that the RSO had left. However, the licensee had failed to formally submit another individual's name along with the individual's training and experience to Mississippi for verification with its renewal application. Instead, the 2021 renewal application only provided the name of an interim RSO. In May of 2022, the licensee submitted a delegation of authority for a permanent RSO without providing the relevant training and experience documentation. The team found that Mississippi was in constant contact with the licensee in an attempt to resolve the renewal application issues, and that the licensee consistently had an individual acting in the RSO position. After the on-site review, on March 14, 2023, Mississippi reached out to the team to provide an update on this matter. Mississippi stated that the licensee had submitted all supporting documentation for a new RSO, Mississippi had

completed its review of the documentation, and the license had been amended to reflect the new RSO. Additionally, Mississippi has tentatively scheduled an inspection for April 2023 to address the remaining concerns with the renewal and work toward completing the action.

The team evaluated the implementation of the Pre-Licensing Guidance and RSRM checklists. The team found that Mississippi conducted pre-licensing site visits for unknown entities and that the guidance was properly implemented. For applications with RSRM, Mississippi completed the RSRM checklist and performed on-site security reviews, as necessary. Documents containing sensitive security information were marked, handled, and secured appropriately. All licensing actions are peer-reviewed.

As identified in Section 2.0 of this report, two recommendations were made related to program performance as a result of the 2022 IMPEP review.

Recommendation 7: Mississippi performs an extent of condition review of all medical licenses issued since April 28, 2017, to ensure that all RSOs, AUs, authorized nuclear pharmacists, and authorized medical physicists are appropriately qualified in accordance with applicable licensing guidance (e.g., equivalent 10 CFR Part 35 regulations and NUREG-1556, Volume 9, Revision 3).

During the review period, Mississippi reviewed licensing actions issued since April 28, 2017, for 30 percent of its medical licenses. Mississippi audited 57 actions for those licensees that involved adding an RSO, AU, authorized medical physicist, or authorized nuclear pharmacist. Mississippi identified six individuals listed on three licenses for whom complete documentation of training was not in the license file. Licensing staff contacted the three impacted licensees to request additional documentation. For all six individuals, rather than providing the additional information, the three licensees indicated that they no longer wished to have them as AUs on the license for the requested use. Mississippi performed an administrative amendment to remove the six individuals from these licenses. The team discussed Mississippi's course of action with management and staff and recommended contacting the licensees again to request documentation to determine if the individuals were qualified for the requested uses. There is a potential for cross-jurisdictional issues if an AU, who is not qualified, uses a version of a Mississippi license they were on to be granted authorization on another Agreement State or NRC license. Mississippi committed to reaching out to the three licensees to obtain the missing documentation.

Additionally, on March 20, 2023, Mississippi provided an update of their progress to the team in addressing the remaining license amendments involving the addition of an RSO, AU, authorized medical physicist or authorized nuclear pharmacist. The audit revealed that three additional AUs and one authorized nuclear pharmacist were added to licenses without the required documentation. Mississippi has contacted the impacted licensees requesting additional documentation to determine if these individuals are qualified for the authorizations as listed on the license. In total, Mississippi determined that it performed 476 medical license amendments since April 2017. Of those, 176 involved adding individuals to licenses. Mississippi has completed a review of 106 of the 176 amendments. Out of the 106 amendments reviewed; Mississippi found 10 instances where added individuals were missing the proper documentation in the licensing file to be added

to the license. Mississippi has contacted the licensees that requested each of these 10 actions to request the additional information. Additionally, Mississippi is working to complete the initial review of the remaining 53 amendments to determine if any additional documents are needed. Mississippi has committed to working with the NRC to notify the National Materials Program of any individuals it placed on a license that it cannot obtain the proper documentation. Therefore, although Mississippi has made significant progress in addressing this recommendation, since it has not yet completed all actions associated with this recommendation, the team is proposing that this recommendation remain open.

Recommendation 8: Mississippi develops a licensing review process that follows the NUREG-1556 series. The licensing review process should use standard or approved license conditions on Mississippi radioactive material licenses to ensure that they do not cause conflicts, duplications, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis. In addition, Mississippi should perform an extent of condition review of licenses renewed since April 28, 2017, to determine if the licensee's compliance history/enforcement history at the time would have made Mississippi not renew the license based on this additional information in accordance with NUREG-1556, Volume 20, Revision 1.

The team determined that licensing actions processed by Mississippi during this review period follow the NUREG-1556 series and use standard or approved license conditions available in the web-based licensing system. Mississippi completed a review of all licenses renewed since April 28, 2017. Mississippi determined that the compliance/enforcement history, if considered at that time, would not have changed Mississippi's decision to proceed with and issue the renewed license. Additionally, the team reviewed case files for four renewals issued by Mississippi since the last IMPEP review and found documentation of the staff's review of the licensee's compliance/enforcement history captured in each action. Therefore, the team is proposing that this recommendation be closed.

c. Evaluation

The team determined that, during the review period, Mississippi met the performance indicator objectives listed in Section 3.4.a. However, the team noted that Mississippi is still working on addressing one of the two recommendations made as a result of the 2022 IMPEP review. Therefore, the team determined that the following recommendation from the 2022 IMPEP review should remain open.

- Mississippi performs an extent of condition review of all medical licenses issued since April 28, 2017, to ensure that all RSOs, AUs, authorized nuclear pharmacists, and authorized medical physicists are appropriately qualified in accordance with applicable licensing guidance.

The team discussed findings of satisfactory and satisfactory but needs improvement for this indicator. The team found that Mississippi has made significant improvements in this indicator related to deficiencies seen during the previous review. Additionally, the team found no performance deficiencies in licensing actions completed during this review period. However, the team determined that as a result of the potential health and safety and compatibility implications of the one open recommendation a finding of satisfactory was not warranted.

Therefore, based on the IMPEP evaluation criteria in MD 5.6, the team recommends that Mississippi's performance with respect to the indicator, Technical Quality of Licensing Actions, be found satisfactory, but needs improvement.

d. MRB Chair's Determination

The final report will present the MRB Chair's determination regarding this indicator.

3.5 Technical Quality of Incident and Allegation Activities

The quality, thoroughness, and timeliness of response to incidents and allegations of safety concerns can have a direct bearing on public health, safety and security. An assessment of incident response and allegation investigation procedures, actual implementation of these procedures internal and external coordination, timely incident reporting, and investigative and follow-up actions, are a significant indicator of the overall quality of the incident response and allegation programs.

a. Scope

The team used the guidance in [SA-105](#), "Reviewing the Common Performance Indicator: Technical Quality of Incident and Allegation Activities," and evaluated Mississippi's performance with respect to the following performance indicator objectives:

- Incident response and allegation procedures are in place and followed.
- Response actions are appropriate, well-coordinated, and timely.
- On-site responses are performed when incidents have potential health, safety, or security significance.
- Appropriate follow-up actions are taken to ensure prompt compliance by licensees.
- Follow-up inspections are scheduled and completed, as necessary.
- Notifications are made to the NRC Headquarters Operations Center for incidents requiring a 24-hour or immediate notification to the Agreement State or NRC.
- Incidents are reported to the Nuclear Material Events Database and closed when all required information has been obtained.
- Allegations are investigated in a prompt, appropriate manner.
- Concerned individuals are notified within 30 days of investigation conclusions.
- Concerned individuals' identities are protected, as allowed by law.

b. Discussion

During the review period, five incidents involving radioactive material were reported to Mississippi. The team evaluated all of the incidents which included: one instance of lost radioactive material, one potential overexposure, and three incidents involving damaged equipment.

When notified of an incident, Mississippi management and staff discuss the incident and determine the appropriate level of response, which can range from an immediate response to a review of the incident during the next routine inspection. Those determinations are made based on both the circumstances and the health and safety significance of the incident. The team determined that Mississippi dispatched inspectors for on-site follow-up, as appropriate. Mississippi dispatched inspectors for on-site follow-up of the potential overexposure and lost radioactive material. The three incidents involving damaged equipment involved fixed gauging devices, two had shutters stuck in the open position and one had a broken locking pin key which broke when the shutter

was placed in the closed position. The two gauges with the shutters stuck in the open position, both at the same licensee, were in areas not typically occupied by employees. Restrictions were posted by the licensee to alert employees to not access the areas in which the two gauges resided. Follow-up for all three incidents was through phone and email communication with the licensees and routine inspections. Overall, the team found that Mississippi's evaluation of incident notifications and its response to those incidents was thorough, complete, and comprehensive.

The team also evaluated the reporting of incidents to the NRC's Headquarters Operations Officer (HOO). The team noted that in each case requiring HOO notification, Mississippi reported the incidents within the required time frame. The team also evaluated whether Mississippi had failed to report any required incidents to the HOO. The team did not identify any missed reporting requirements.

During the review period, no allegations were received by Mississippi, and none were transferred to Mississippi by the NRC. The team evaluated Mississippi's complaint/allegation/incident (CAI) procedure, which was revised as a result of the 2022 IMPEP review and issued in November 2022, and interviewed staff to assess how allegations are handled when received by the program. The team determined that the staff are knowledgeable of the procedure and have an appropriate understanding of what an allegation is, how to process one, and how to appropriately close the action.

As identified in Section 2.0 of this report, one recommendation was made related to program performance as a result of the 2022 IMPEP review.

Recommendation 9: Mississippi conduct an assessment of their incident and allegation casework completed for the review period to ensure proper closure of cases.

The team reviewed Mississippi's assessment of work related to incidents and allegations during the 2022 IMPEP review period. The team determined that Mississippi followed up and ensured proper closure for incidents and allegations received. Additionally, the team reviewed incidents received during the 2023 IMPEP review and for the incidents that were able to be brought to closure, ensured they were closed as expected. No allegations were received by Mississippi during the 2023 IMPEP review period; therefore, the team did not have an example to review to assess performance related to this recommendation for closure of allegations. The team interviewed staff and reviewed Mississippi's revised CAI procedure as it related to this recommendation. The team determined that Mississippi staff understand the procedure and how to properly close out an allegation when one is received. Therefore, the team determined that Mississippi has met the intent of this recommendation and is proposing it be closed.

c. Evaluation

The team determined that, during the review period, Mississippi met the performance indicator objectives listed in Section 3.5.a. Based on the criteria in MD 5.6, the team recommends that Mississippi's performance with respect to the indicator, Technical Quality of Incident and Allegation Activities, be found satisfactory.

d. MRB Chair's Determination

The final report will present the MRB Chair's determination regarding this indicator.

#### 4.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State programs: (1) Legislation, Regulations, and Other Program Elements; (2) SS&D Evaluation Program; (3) Low-Level Radioactive Waste (LLRW) Disposal Program; and (4) Uranium Recovery Program. The NRC retains regulatory authority for uranium recovery programs; therefore, only the first three non-common performance indicators applied to this review.

##### 4.1 Legislation, Regulations, and Other Program Elements

State statutes should authorize the State to establish a program for the regulation of agreement material and provide authority for the assumption of regulatory responsibility under the State's agreement with the NRC. The statutes must authorize the State to promulgate regulatory requirements necessary to provide reasonable assurance of adequate protection of public health, safety, and security. The State must be authorized through its legal authority to license, inspect, and enforce legally binding requirements, such as regulations and licenses. The NRC regulations that should be adopted by an Agreement State for purposes of compatibility or health and safety should be adopted in a time frame so that the effective date of the State requirement is not later than 3 years after the effective date of the NRC's final rule. Other program elements that have been designated as necessary for maintenance of an adequate and compatible program should be adopted and implemented by an Agreement State within 6 months following NRC designation. A Program Element Table indicating the Compatibility Categories for those program elements other than regulations can be found on the NRC web site at the following address: <https://scp.nrc.gov/regtoolbox.html>.

##### a. Scope

The team used the guidance in [SA-107](#), "Reviewing the Non-Common Performance Indicator: Legislation, Regulations, and Other Program Elements," and evaluated Mississippi's performance with respect to the following performance indicator objectives. A complete list of regulation amendments can be found on the NRC website at the following address: <https://scp.nrc.gov/regtoolbox.html>.

- The Agreement State program does not create conflicts, duplications, gaps, or other conditions that jeopardize an orderly pattern in the regulation of radioactive materials under the Atomic Energy Act, as amended.
- Regulations adopted by the Agreement State for purposes of compatibility or health and safety were adopted no later than 3 years after the effective date of the NRC regulation.
- Other program elements, as defined in [SA-200](#) that have been designated as necessary for maintenance of an adequate and compatible program, have been adopted and implemented within 6 months of NRC designation.
- The State statutes authorize the State to establish a program for the regulation of agreement material and provide authority for the assumption of regulatory responsibility under the agreement.
- The State is authorized through its legal authority to license, inspect, and enforce legally binding requirements such as regulations and licenses.
- Sunset requirements, if any, do not negatively impact the effectiveness of the State's regulations.

b. Discussion

Mississippi became an Agreement State on July 1, 1962. The State's current effective statutory authority is contained in the Mississippi Administrative Code Title 15, Part 21, Division of Radiological Health regulations. The Mississippi Radiation Protection Law of 1976 designates the Department of Health as the radiation control agency for Mississippi. No new legislation was created or implemented since the last IMPEP review.

Mississippi adopts the NRC's regulations by reference. At the time of the IMPEP review, there were no overdue regulations, and no regulations were adopted overdue during the review period. The team noted that the State's rules and regulations are not subject to "sunset" laws.

Certain program elements, as specified in MD 5.9, "Adequacy and Compatibility of Program Elements for Agreement State Programs," have been designated as necessary to ensure uniformity nationwide for compatibility purposes. These elements are required to be adopted and implemented within 6 months of designation to maintain an adequate and compatible program. During the last IMPEP review period, it was determined that Mississippi did not adopt several of these elements within the 6-month time frame. For example, during the last IMPEP review, Mississippi was not using the most current Pre-Licensing Guidance, RSRM Checklist, IMC 1248, or compatible IPs. During this review period, the team determined Mississippi has appropriately adopted all applicable elements and that each is compatible with the NRC.

As identified in Section 2.0 of this report, one recommendation was made related to program performance as a result of the 2022 IMPEP review.

Recommendation 10: Mississippi develops and implements a procedure for the control of sensitive or security-related information that provides guidance to identify, mark, handle, and protect such information consistently. This applies to the overall program (licensing, inspections, and investigations).

During the 2022 IMPEP review, the team noted that Mississippi was properly marking licenses for sensitive security-related information; however, Mississippi was not doing the same for the inspection documentation. During the 2023 IMPEP review, the team determined that Mississippi used the NRC's Regulation Information Summary 2005-31 to add language to its procedures for licensing, inspection, and CAI addressing the marking, handling, and protection of sensitive or security-related information. The team reviewed licensing, inspection, and CAI work completed during the review period and determined that the documents are marked accordingly. Therefore, the team is proposing that this recommendation be closed.

c. Evaluation

The team determined that, during the review period, Mississippi met the performance indicator objectives listed in Section 4.1.a. Based on the criteria in MD 5.6, the team recommends that Mississippi's performance with respect to the indicator, Legislation, Regulations, and Other Program Elements, be found satisfactory.

d. MRB Chair's Determination

The final report will present the MRB Chair's determination regarding this indicator.



#### 4.2 SS&D Evaluation Program

Under its agreement with the NRC, Mississippi has the authority to regulate SS&D evaluations for manufacturers and distributors located within its borders. No SS&D manufacturers or distributors have existed in Mississippi since it became an Agreement State. As a result, Mississippi does not currently have a program staffed to perform SS&D evaluations. Therefore, the team did not review this indicator, consistent with previous IMPEP reviews.

#### 4.3 LLRW Disposal Program

In 1981, the NRC amended its Policy Statement, "Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement," to allow a State to seek an amendment for the regulation of LLRW as a separate category. Those States with existing Agreements prior to 1981 were determined to have continued LLRW disposal authority without the need for an amendment. Although, Mississippi has authority to regulate a LLRW disposal facility, the NRC has not required States to have a program for licensing a disposal facility until such time as the State has been designated as a host State for a LLRW disposal facility. When an Agreement State has been notified or becomes aware of the need to regulate a LLRW disposal facility, it is expected to put in place a regulatory program that will meet the criteria for an adequate and compatible LLRW disposal program. There are no plans for a LLRW disposal facility in Mississippi. Accordingly, the team did not review this indicator.

#### 5.0 SUMMARY

As noted in Sections 3.0 and 4.0 above, the team found Mississippi's performance satisfactory for the performance indicators Status of Materials Inspection Program; Technical Quality of Inspections; Technical Quality of Incident and Allegation Activities; and Legislation, Regulations, and Other Program Elements. The team also found Mississippi's performance satisfactory, but needs improvement, for the indicators Technical Staffing and Training and Technical Quality of Licensing Actions. The team made one new recommendation regarding program performance for the indicator Technical Staffing and Training and determined that 9 of the 10 recommendations from the 2022 IMPEP review should be closed and the remaining recommendation regarding an extent of condition review as discussed under Section 3.4, Technical Quality of Licensing Actions, should remain open and the one recommendation from the 2017 IMPEP review should be closed.

Accordingly, the team recommends that Mississippi be found adequate, to protect public health and safety, but needs improvement, and compatible with the NRC's program. Given the State's significant progress in addressing previous recommendations and the strong commitment from Mississippi management to continue to improve performance as evidenced by the actions taken since the last IMPEP review, the team is recommending that Mississippi be removed from Probation and placed on Heightened Oversight. Heightened Oversight is a formal process and includes requests for an Agreement State program improvement plan, periodic Agreement State progress reports, periodic conference calls between the NRC and the Agreement State, and a follow-up or full IMPEP review in less than four years where appropriate. Per Section V.C.4.b. of SA-113 "Placing an Agreement State on Probation," the continuation or discontinuation of probation can be based on any one of three listed reasons. Specifically, the team noted that reason b.ii states: "If the MRB finds the Agreement State program is improving and is implementing the recommendations

from the last IMPEP review; and the program is still found satisfactory, but needs improvement, for one or more performance indicators, the MRB should recommend discontinuation of the probationary period and the Agreement State program be placed on Heightened Oversight or Monitoring.”

Overall, the team is recommending that the next IMPEP review take place in approximately 2 years from the Management Review Board meeting, currently scheduled for June 15, 2023, and that a periodic meeting be held in approximately 1 year. Specifically, the periodic meeting should assess Mississippi’s progress in addressing the two recommendations noted below, review the progress of staff inspector qualifications, and to ensure Mississippi continues to satisfactorily maintain measures put in place to address performance concerns identified in the 2022 IMPEP report.

- 1) Mississippi provide training to its staff on all programmatic procedures revised since the 2022 IMPEP review. (Section 3.1).
- 2) Mississippi performs an extent of condition review of all medical licenses issued since April 28, 2017, to ensure that all RSOs, AUs, authorized nuclear pharmacists, and authorized medical physicists are appropriately qualified in accordance with applicable licensing guidance (e.g., equivalent 10 CFR Part 35 regulations and NUREG-1556, Volume 9, Revision 3). (Section 3.4; remains open from 2022 IMPEP review).

## LIST OF APPENDICES

Appendix A	IMPEP Review Team Members
Appendix B	Inspector Accompaniments

## APPENDIX A

### IMPEP REVIEW TEAM MEMBERS

<b>Name</b>	<b>Areas of Responsibility</b>
Monica Ford, Region I	Team Leader Technical Quality of Incident and Allegation Activities
Jacqueline Cook, Region IV	Technical Staffing and Training Legislation, Regulations, and Other Program Elements
James Thompson, Region IV	Status of Materials Inspection Program Technical Quality of Inspections Inspector Accompaniments
Karen Flannigan, New Jersey	Technical Quality of Licensing Actions

## APPENDIX B

### INSPECTOR ACCOMPANIMENTS

The following inspector accompaniments were performed prior to the on-site IMPEP review:

Accompaniment No.: 1	License No.: MS-622-01
License Type: Industrial Radiography	Priority: 1
Inspection Date: 01/24/2023	Inspector's initials: RS

Accompaniment No.: 2	License No.: MS-1024-01
License Type: Portable Nuclear Gauges	Priority: 5
Inspection Date: 01/25/2023	Inspector's initials: LG

Accompaniment No.: 3	License No.: MS-1116-01
License Type: Portable Nuclear Gauges	Priority: 5
Inspection Date: 01/25/2023	Inspector's initials: SB

Accompaniment No.: 4	License No.: MS-796-01
License Type: Portable Nuclear Gauges	Priority: 5
Inspection Date: 01/26/2023	Inspector's initials: AR